

## REQUESTS FOR INFORMATION

To receive more information about Wisconsin's Natural Heritage Inventory or to receive a Natural Heritage Inventory Information Request Form, write or call:

The Bureau of Endangered Resources  
Wisconsin Department of Natural Resources  
Box 7921 ER/4  
Madison, WI 53707-7921  
608-266-7012

## SUPPORT NHI WORK

There are many ways to support the work of Wisconsin's Natural Heritage Inventory and the Bureau of Endangered Resources. You can donate to the Endangered Resources Fund on your Wisconsin Income Tax form or display an endangered resources license plate on your car or truck. (Applications for the license plate are available at DNR and DOT offices.) Gifts can also be made directly to NHI by sending a donation to the Bureau at the above address with a request that it be deposited in the NHI gift account. For more information on supporting our work, call or write the Bureau of Endangered Resources at the address listed above. Your support is greatly appreciated!



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# WISCONSIN'S NATURAL HERITAGE INVENTORY



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Most people would agree that Wisconsin is replete with natural beauty. Our state contains a large diversity of native plant communities ranging from eastern deciduous, northern coniferous, and boreal forests to prairies

and savannas. Wisconsin's glacial past left the soils that support these diverse communities. The glaciers also left Wisconsin a legacy of aquatic features including bogs, lakes, spring ponds, and wetlands. And one cannot overlook the rivers that led early explorers to the awesome sights they beheld. This landscape hosts a wide array of native species, many of which we observe and cherish while others are yet to be discovered and studied.

People are also part of the Wisconsin landscape. The natural wealth of our state has provided generations of farmers with fertile soils for crops. The northern and southern forests are a key resource for the building and manufacturing economy so important to the livelihood of many of Wisconsin's citizens. The enjoyment that people receive from outdoor activities, such as hunting and fishing, hiking and camping, and observing nature, is part of our culture. Thus, the ties that bind people to nature are diverse and deep.

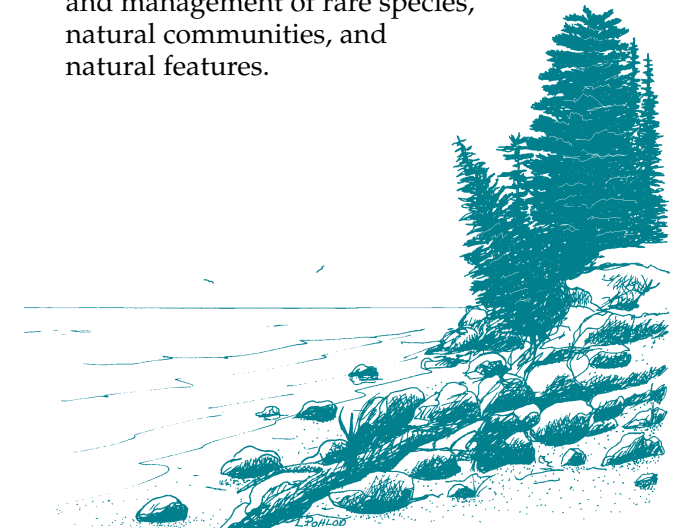
But much of this natural splendor has been lost through human use of the landscape and its natural resources. How much of the remainder can and should be preserved? This is one of the biggest questions facing the people of Wisconsin today. In order to make decisions about what, where, and how much can and should be saved, we must first know what remains, where it is, and whether or not something threatens its continued existence. The Wisconsin Natural Heritage Inventory is one of the critical tools used in making these decisions.



Wisconsin's Natural Heritage Inventory (NHI), established in 1985 by the Wisconsin Legislature, is maintained by the Wisconsin Department of Natural Resources' (WDNR) Bureau of Endangered Resources. The NHI program is responsible for maintaining data on the locations and status of rare species, natural communities, and natural features in Wisconsin. The Wisconsin NHI program is part of an international network of inventory programs that collect, process, and manage data on the occurrences of natural biological diversity using standard methodology. This network was established, and is still coordinated by The Nature Conservancy (TNC), an international non-profit organization. The network now includes natural heritage inventory programs in all 50 states, most provinces in Canada, and many countries in Central and South America.

Wisconsin's Natural Heritage Inventory program's three objectives are to:

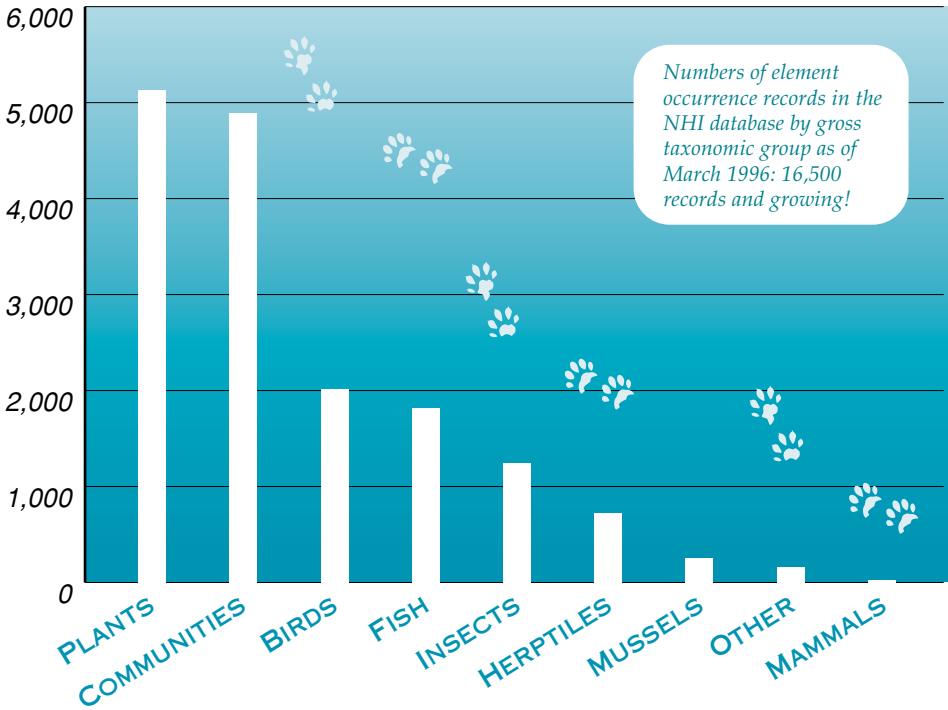
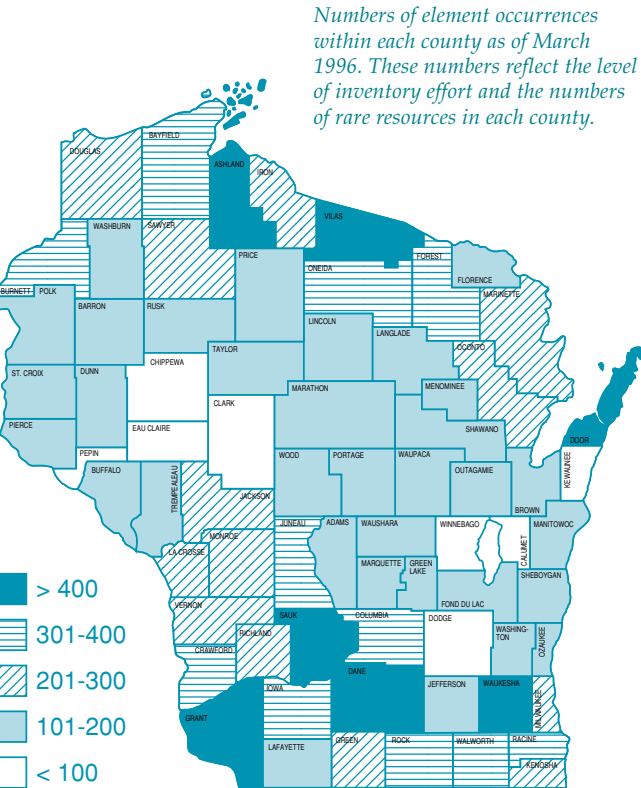
- ✦ collect information on occurrences of rare plants and animals, high-quality natural communities, and significant natural features in Wisconsin;
- ✦ standardize this information, enter it into an electronic database, and mark locations on base maps for the state, and;
- ✦ use this information to further the protection and management of rare species, natural communities, and natural features.



THE WORKING LIST

The *elements* tracked by the NHI program are compiled on a Working List of rare plants, animals, and natural communities. The Working List is dynamic, with species added and deleted as determined by NHI staff. Wisconsin’s NHI program tracks the following element types:

- ✦ plant and animal species tracked as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and/or the WDNR;
- ✦ plants and animals species tracked by the USFWS and/or the WDNR as a species of special concern (a species whose numbers are thought to be low but has not yet been proven);
- ✦ natural communities as classified and described by the program ecologist and in John Curtis’ *Vegetation of Wisconsin*;
- ✦ unique geological features and animal aggregation sites (such as bat hibernacula).



DATA MANAGEMENT

A team of mapping specialists and data managers works together to organize, standardize, map, and store the *element occurrence records* gathered by the biologists. Their work requires computers, pens and pencils, big tables for spreading out maps, and endless concentration. Working with WDNR’s Bureau of Information Management, they have developed a Geographic Information System (GIS) for the electronic display of the NHI data atop layers of other geographical information. Maps created using the GIS are among the information products developed by the Data Management Team.

FIELD INVENTORY

A team of NHI biologists conducts inventories, identifies rare species, and describes natural community occurrences. These are the individuals who endure tired feet and irritating insect bites to search remote corners of the state for rare species and their habitats. The team is made up of full-time staff specialists in botany, zoology, and community ecology. The records of *element occurrences* they collect are supplemented by records contributed by a variety of part-time and temporary employees, other science professionals, and volunteers as well as other BER and WDNR staff.

The team of NHI biologists collaborates with other WDNR staff on data interpretation, use, and analysis. They also provide education and outreach to WDNR staff and general audiences. Using the NHI data, they are responsible for determining the biological rarity of species and if the species should be proposed for listing as Endangered or Threatened by the Natural Resources Board and the State Legislature.

ENVIRONMENTAL REVIEW

A team of specialists uses the NHI information to evaluate the impact of proposed projects around the state and to protect rare resources. These individuals could be considered the NHI frontliners. They provide data and technical support to WDNR managers, private consultants, municipalities, counties, state and federal agencies, and private individuals. Requests for information are evaluated by these specialists and addressed on a case-by-case basis, matching the requestor’s needs with the appropriate level of information.

The Environmental Review Team uses the concepts of conservation biology and sustainable development in evaluating projects for potential impacts to rare resources. By working early in the planning phase of a development or land management project, they strive to avoid and minimize impacts to rare resources while considering alternatives that allow the project to be implemented. This approach has proven that economic development and resource protection can be compatible.

ECOSYSTEM MANAGEMENT

Ecosystem management is an approach that blends human needs and values with ecosystem capability and sustainability. It is based on the premise that natural resources should be managed as natural systems, and that humans are an integral part of these systems. To successfully practice ecosystem management, managers must have useful and reliable information. This is where the NHI program comes into play. Its information on the status and distribution of species and natural communities is very useful for helping managers visualize connections and patterns across the landscape. NHI information is especially useful because it can be combined with data from surrounding states to cover entire ecoregions and drainage basins. Thus, small projects can be approached with their larger context in mind, and large projects can be approached as a whole, using natural boundaries.

DATA SENSITIVITY

Information in the Natural Heritage Inventory is sensitive because rare species are very vulnerable to collection as well as destruction. Publication of exact locations may threaten their continued existence. It is for this reason that the NHI data are exempt from the Wisconsin Open Records Law. However, the Bureau of Endangered Resources can and does share NHI data to facilitate protection, plan management, design preserves, and avoid impacts to rare resources. Data are shared with care but with the customer’s needs in mind.

